

CUSTOMER NO.: 24498
Serial No. 10/021,285

Reply to Final Office Action dated: 05/03/06
Response dated: 12/19/06

PATENT
PU010241

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REMARKS

In the Office Action, the Examiner stated that claims 1-22 are pending in the application and that claims 1-22 stand rejected. By this response, claims 1 and 12 have been amended to more clearly define the invention of the Applicant and not in response to prior art.

In view of the amendments presented above and the following discussion, the Applicant respectfully submits that none of these claims now pending in the application are anticipated under the provisions of 35 U.S.C. § 102 or rendered obvious under the provisions of 35 U.S.C. § 103. Thus the Applicant believes that all of these claims are now in allowable form.

Rejections

A. 35 U.S.C. § 102

The Examiner rejected the Applicant's claims 1-8, 10-19 and 21-22 under 35 U.S.C. § 102(b) as being anticipated by Nagata (US Patent No. 5,974,224). The rejection is respectfully traversed.

"Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim" (Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co., 730 F.2d 1452, 221 USPQ 481, 485 (Fed. Cir. 1983)). (emphasis added). The Applicant respectfully submits that Nagata fails to teach each and every element of at least the Applicant's amended claim 1, which specifically recites:

"A method of producing a trick mode playback of a segment of video containing a plurality of predictively encoded pictures comprising the steps of:

(a) decoding a portion of a predictive picture from the plurality of predictive pictures without decoding the predictive picture in its entirety; and,

(b) updating a portion of information stored in a memory with the portion of the predictive picture."

The Examiner, in the Final Office Action, alleges that since Nagata decodes a picture that "a portion" of the picture is decoded. However, this rationale does not contemplate the clear meaning of the claims. Claim 1 has been amended to

CUSTOMER NO.: 24498**Serial No. 10/021,285**

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provide further clarification although the original claims are believed to be sufficient to overcome the cited art.

In accordance with one aspect of the present invention, a portion or part of a picture is decoded without decoding the whole picture. In Nagata, this is not disclosed or suggested. Nagata provides that when the desired frame is an I picture or P picture, only the I picture and P pictures from the first I picture in the GOP to the desired frame are decoded...". While Nagata may restrict the number of pictures decoded, the pictures that are decoded are decoded in their entirety. Nowhere in Nagata is less than a whole picture decoded and employed in a subsequent processing step. The trick modes employed in Nagata fail to disclose or suggest decoding only a part of a picture as a way of achieving the goals of the present invention.

The Examiner contends that decoding a whole picture requires decoding a part of a picture. While this may be true, there is no disclosure or suggestion of stopping this decoding process before the entire picture is decoded. In addition, there is no disclosure or suggestion in Nagata for then employing only that the decoded portion in updating a portion of information stored in a memory with the portion of the predictive picture as set forth in the present claims.

Claim 1 of the present invention includes, *inter alia*, a method of producing a trick mode playback of a segment of video containing a plurality of predictive encoded pictures comprising the steps of decoding a portion of a predictive picture from the plurality of predictive pictures without decoding the predictive picture in its entirety; and, updating a portion of information stored in a memory with the portion of the predictive picture.

Upon careful reading of the claims, it becomes apparent that Nagata fails to disclose or suggest the claimed features. Nowhere in Nagata are that steps of decoding a portion of a predictive picture from the plurality of predictive pictures without decoding the predictive picture in its entirety; and, updating a portion of information stored in a memory with the portion of the predictive picture disclosed or suggested.

It is therefore respectfully submitted that while Nagata may have to decode portion of a picture while decoding the whole picture, Nagata always decodes the picture in its entirety before proceeding with the processing. Every instance or

CUSTOMER NO.: 24498

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Response dated: 12/19/06

**PATENT
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example mentioned in Nagata for decoding signals requires the use of a complete picture and/or group of pictures (GOP) for decoding. (See e.g., col. 6, lines 60-65, col. 10 lines 21-25, lines 44-47, and lines 54-56, etc.). It is clear from the specification that complete pictures are necessary to support the decoding method as would be expected of MPEG decoding systems.

The decoding method of Nagata uses a desired frame (picture) to indicate which group of pictures (GOP) to reproduce. If the frame is an I or P frame, the associated GOP (including at least one I frame) is reproduced in order and stored in memory. If the B picture is the only desired frame, only the B picture is decoded if the reference frames are already available in memory. If not, the entire GOP including the B picture is reproduced.

In accordance with Nagata, any memory storage must include an entire picture to be capable of decoding the pictures in a video segment. Nowhere in Nagata is it disclosed or suggested that portions of pictures be decoded and updated in memory as recited in the present claims. Nagata imposes additional limits. For example, if the memory does not include all of the reference frames (in their entirety), the entire GOP must be decoded. (See e.g., claim 1 of Nagata). Nagata needs each frame to be present in its entirety in order for the method disclosed to work. Nowhere in Nagata is it disclosed or suggested that the method be employed to decode only portions of pictures nor does Nagata disclose or suggest that that portions of pictures be updated in memory.

In contrast to Nagata and advantageous over the invention of Nagata, in the invention of the Applicant, and specifically claim 1, a segment containing predictive frames or pictures is advantageously employed to render trick mode operations by updating only portions of the pictures. Pictures are reconstructed from portions of predicted frames without decoding the predictive picture in its entirety. The system and method permit the decoding of pieces or portions of the pictures and the trick mode is employed using these portions as the portions are updated in memory. The present claims provide that a segment of predictive pictures need not even have an I frame available and can still be employed to provide the trick mode based on updating portions of the predictive pictures. The entire picture need not be decoded during a trick mode operation. This provides portions of the entire information, but is still sufficient to provide high speed trick modes for playback.

CUSTOMER NO.: 24498

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For at least the reasons recited above, the Applicant respectfully submits that Nagata fails to teach, suggest or disclose at least each and every element of the Applicant's claimed invention, arranged as in at least the Applicant's claim 1 as required for anticipation. Therefore, the Applicant respectfully submits that the teachings and disclosure of Nagata do not anticipate the Applicant's invention, at least with respect to independent claim 1.

Therefore, the Applicant submits that for at least the reasons recited above, independent claim 1 is not anticipated by the teachings of Nagata and, as such, fully satisfies the requirements of 35 U.S.C. § 102 and is patentable thereunder.

Likewise, independent claim 12 recites similar relevant features as recited in the Applicant's independent claim 1. As described above, there is absolutely no teaching, suggestion or disclosure in Nagata for at least decoding portions of predictive pictures without decoding the predictive picture in its entirety as presently claimed by the Applicant's independent claims 1 and 12. As such, the Applicant respectfully submits that for at least the reasons recited above independent claim 12 is also not anticipated by the teachings of Nagata and also fully satisfies the requirements of 35 U.S.C. § 102 and is patentable thereunder.

Furthermore, dependent claims 2-8, 10-11, 13-19 and 21-22 depend either directly or indirectly from independent claims 1 and 12 and recite additional features therefor. As such and for at least the reasons set forth herein, the Applicant submits that dependent claims 2-8, 10-11, 13-19 and 21-22 are also not anticipated by the teachings of Nagata. Therefore the Applicant submits that dependent claims 2-8, 10-11, 13-19 and 21-22 also fully satisfy the requirements of 35 U.S.C. § 102 and are patentable thereunder.

In addition, claims 7 and 18 essentially recite: wherein the segment of video is an MPEG video segment that does not contain any intra pictures and each of the plurality of predictive pictures contains intra macroblocks. (See also claims 8 and 19). These features are not disclosed or suggested by Nagata.

The Applicant reserves the right to establish the patentability of each of the claims individually in subsequent prosecution.

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B. 35 U.S.C. § 103

The Examiner rejected the Applicant's claims 9 and 20 over Nagata in view of Tanabe (US Patent No. 6,876,812). The rejection is respectfully traversed.

The Examiner applied the Nagata for teaching all of the aspects of the Applicant's claimed invention but concedes that the Nagata fails to teach that a playback speed of the fast motion trick mode in a forward direction is greater than 3x. However, the Examiner cites Tanabe for teaching that a playback speed of the fast motion trick mode in a forward direction is greater than 3x. The Applicant respectfully disagrees.

Claims 9 and 20 are dependent claims that depend either directly or indirectly from Independent claims 1 and 12. As described above, the Applicant submits that the teachings of Nagata fail to teach, suggest or anticipate the Applicant's claims 1 and 12 for at least the reasons recited above. Furthermore, the Applicant submits that Tanabe also fails to teach, suggest or render obvious at least a method and system for producing trick mode playback including decoding portions of predictive pictures without decoding the predictive picture in its entirety as taught in the Applicant's Specification and as claimed by at least the Applicant's claims 1 and 12.

As such, the Applicant submits that at least because Nagata and Tanabe, either alone or in any allowable combination, fail to teach, suggest or render obvious at least a method and system for producing trick mode playback including decoding portions of predictive pictures without decoding the predictive picture in its entirety as taught in the Applicant's Specification and as claimed by at least the Applicant's claims 1 and 12, the Applicant further respectfully submits that Nagata and Tanabe, either alone or in any allowable combination, also fail to teach, suggest or render obvious the Applicant's claims 9 and 20, which depend directly from the Applicant's independent claims 1 and 12, respectively.

Therefore, the Applicant submits that for at least the reasons recited above, the Applicant's claims 9 and 20 are not rendered obvious by the teachings of Nagata and Tanabe, alone or in any allowable combination and, as such, fully satisfy the requirements of 35 U.S.C. § 103 and are patentable thereunder.

The Applicant reserves the right to establish the patentability of each of the claims individually in subsequent prosecution.

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Conclusion

Thus the Applicant submits that none of the claims, presently in the application, are anticipated under the provision of 35 U.S.C. § 102 or rendered obvious under the provisions of 35 U.S.C. § 103. Consequently, the Applicant believes that all these claims are presently in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited. In addition, the Applicant submits that a new search is not required by the amendments made to the claims because the Examiner already had two opportunities to search for prior art regarding "decoding a portion of a predictive picture from the plurality of predictive pictures" as taught and claimed in the Applicant's claims, the Applicant merely added "without decoding the predictive picture in its entirety" to clarify the invention of the Applicant. The previous technical features of the Applicant's claims before this amendment already impliedly included the limitation added by the Applicant in this amendment.

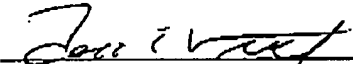
If however, the Examiner believes that there are any unresolved issues requiring adverse final action in any of the claims now pending in the application, or if the Examiner believes a telephone interview would expedite the prosecution of the subject application to completion, it is respectfully requested that the Examiner telephone the undersigned.

No fee is believed due. However, if a fee is due, please charge the additional fee to Deposit Account No. 07-0832.

Respectfully submitted,

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